

Form PTO-1449 (MODIFIED)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		NEW ATTY. DOCKET NO. CM-052B		SERIAL NO. 10/619,150		
<b>PATENT INFORMATION DISCLOSURE CITATION</b>  OCT 16 2003 <i>(Use several sheets if necessary)</i>				APPLICANT Victor W. THOMAS, Sr., et al.				
				FILING DATE July 14, 2003	GROUP ART UNIT 1744			
U.S. PATENT DOCUMENTS								
EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME,	CLASS	SUB-CLASS	FILING DATE IF APPROPRIATE	
FOREIGN PATENT DOCUMENTS								
	REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION	
							YES	NO
TIS		112667	5/1/89	CN	A47L		X	
TIS		123375	11/21/89	CN	A47L		X	
TIS		162083	7/1/01	CN	A47LT	18	X	
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)								
<b>EXAMINER</b>				<b>DATE CONSIDERED</b>				
VS. Snider				2/6/04				

\* EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include any copy of this form with next communication to applicant.

003,371800

**INFORMATION DISCLOSURE CITATION**  
*(Use several sheets if necessary)*
Docket Number (Optional)  
CM-052 BApplication Number  
10/619,150Applicant(s)  
Thomas et al.Filing Date  
July 14, 2003Group Art Unit  
1744

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
TIS		901,978	10-27-1908	Mally et al.	—	—	
TIS		3,197,798	08-03-1965	Brown et al.	—	—	
TIS		4,380,844	04-26-1983	Waldhauser et al.	15	320	
TIS		5,454,138	10-3-1995	Mondigo et al.	15	354	
TIS		5,940,928	08-24-1999	Erko	15	319	

## FOREIGN PATENT DOCUMENTS

REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						YES	NO

OTHER DOCUMENTS *(Including Author, Title, Date, Pertinent Pages, Etc.)*


EXAMINER

FS. Snider

DATE CONSIDERED

2/6/04

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<b>INFORMATION DISCLOSURE CITATION</b> <i>(Use several sheets if necessary)</i>				ATTY DOCKET NO. CM-052 B		SERIAL NO. 10/619,150	
				APPLICANT(S) Thomas et al.			
				FILING DATE July 14, 2003		GROUP 1744	
U.S. PATENT DOCUMENTS							
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
TTS	3,204,280	9/7/65	C. Cambell	—	—		
TTS	3,742,546	7/3/73	Crener et al.	15	320		
TTS	3,795,933	3/12/74	Seufert	15	114		
TTS	3,921,244	11/25/75	Warren et al.	15	98		
TTS	3,931,659	1/13/76	Pfefferkorn et al.	15	246		
TTS	3,942,215	3/19/76	Olds	15	320		
TTS	3,952,361	4/27/76	Wilkins	15	319		
TTS	3,972,088	8/3/76	Thomas	15	4		
TTS	4,094,034	6/13/78	Wilkins et al.	—	—		
TTS	4,096,084	6/20/78	Thomsen et al.	—	—		
TTS	4,114,711	9/19/78	Wilkins	15	319		
FOREIGN PATENT DOCUMENTS							
	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
TTS	0569984A1	18.11.93	European Patent Office	—	—		
TTS	EP0951858A1	27.10.99	European Patent Office	—	—		
TTS	WO 95/09557	13.4.95	WIPO	—	—		
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)							
TTS	Brooks, Rodney A., "The Behavior Language: User's Guide", Massachusetts Institute of Technology Artificial Intelligence Laboratory, page: 1-34, April, 1990.						
TTS	Brooks, Rodney A., "Integrated Systems Based on Behaviors", Massachusetts Institute of Technology Artificial Laboratory, page: 1-5.						
EXAMINER B. Snider				DATE CONSIDERED 2/6/04			
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<b>INFORMATION DISCLOSURE CITATION</b> <i>(Use several sheets if necessary)</i>				ATTY DOCKET NO. CM-052B		SERIAL NO. 10/619,150	
				APPLICANT(S) Thomas et al.			
				FILING DATE July 14, 2003		GROUP 1700	
U.S. PATENT DOCUMENTS							
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
TIS	4,118,819	10/10/78	Gordon et al.				
TIS	4,122,576	10/31/78	Bevington et al.	15	98		
TIS	4,150,456	4/24/79	Alvarez et al.	15	246		
TIS	4,214,337	7/29/80	Nise et al.				
TIS	4,237,571	12/9/80	Nelson				
TIS	4,295,243	10/20/81	King	15	320		
TIS	4,322,920	4/6/82	Wells	15	246		
TIS	4,393,534	7/19/83	Lee et al.	15	98		
TIS	4,492,002	1/8/85	Waldhauser et al.	15	320		
TIS	4,577,364	3/25/86	Demetriades	15	320		
TIS	4,506,405	3/26/85	Block	15	320		
FOREIGN PATENT DOCUMENTS							
	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)							
TIS		Evans, John M., "HelpMate: a service robot success story", Service Robot: An International Journal, Vol. 1, No. 1, MCB University Press, pages: 19-21, (1995).					
TIS		Hofner, Christian and Gunter Schmidt, "Path Planning And Guidance Techniques For An Autonomous Mobile Cleaning Robot", Department for Automatic Control Engineering (LSR) Technische Universität München, Germany, pages: 610-617.					
EXAMINER <i>TS. Snider</i>				DATE CONSIDERED <i>2/4/04</i>			
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				U.S. PATENT DOCUMENTS			
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
TIS	4,633,541	1/6/87	Block	15	320		
TIS	4,783,872	11/15/88	Barhoc	15	98		
TIS	4,790,402	12/13/88	Field et al.				
TIS	4,819,676	4/11/89	Biehart et al.	15	349		
TIS	4,825,500	5/2/89	Basham et al.	15	319		
TIS	4,910,824	3/27/90	Nagayama et al.	15	98		
TIS	4,940,082	7/10/90	Roden	15	321		
TIS	4,958,068	9/18/90	Pong et al.				
TIS	5,020,620	6/4/91	Field				
TIS	5,032,775	7/16/91	Mizuno et al.				
TIS	5,064,010	11/12/91	Masbruch et al.	15	240.2		
FOREIGN PATENT DOCUMENTS							
	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)							
TIS		Jenkins, Frank, "Practical Requirements for a Domestic Vacuum-Cleaning Robot", JRL Consulting, P.O. Box 1289, Menlo Park, CA 94026, pages: 85-90.					
TIS		Leng, Goh Wee, "An Expert Autonomous Vacuum Cleaner Robot", School of Electrical & Electronic Engineering, Nanyang Technological Institute, Singapore, pages: 598-604, 1988.					
EXAMINER R.S. Snyder			DATE CONSIDERED 2/5/04				
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U.S. PATENT DOCUMENTS							
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
TJS	5,093,955	3/10/92	Bleher et al.	15	320		
TJS	5,148,573	9/22/92	Killian et al.	15	339		
TJS	5,212,848	5/25/93	Geyer	15	401		
TJS	5,253,384	10/19/93	Joines et al.	15	98		
TJS	5,254,146	10/19/93	Beaufoy	15	340.3		
TJS	5,287,581	2/22/94	Lo	15	52		
TJS	5,289,605	3/1/94	Armbruster	15	97.1		
TJS	5,293,955	3/15/94	Lee	15	319		
TJS	5,307,273	4/26/94	Oh et al.				
TJS	5,371,912	12/13/94	Hall	15	98		
TJS	5,402,051	3/28/95	Fujiwara et al.				
FOREIGN PATENT DOCUMENTS							
	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO	
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)							
TJS	Schofield, Monica, "Cleaning Robots", Service Robot: An International Journal, Vol. 1, No. 3, MCB University Press, pages: 11-16, (1995).						
TJS	Ward, Charles W., "Sweeping Revelations From A First Time Robot-User", Commercial Services of Virginia, Inc., pages: 14-1 to 14-6.						
EXAMINER B. Snider				DATE CONSIDERED 2/6/04			
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EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
TTS	5,402,559	4/4/95	Allison et al.	15	228		
TTS	5,440,216	8/8/95	Kim	15	319		
TTS	5,467,500	11/21/95	O'Hara et al.	15	320		
TTS	5,534,762	7/9/96	Kim	15	340.1		
TTS	5,548,511	8/20/96	Bancroft	15	319		
TTS	5,566,422	10/22/96	Geyer	15	320		
TTS	5,611,105	3/18/97	Bleher et al.	15	320		
TTS	5,613,261	3/25/97	Kawakami et al.	15	98		
TTS	5,621,291	4/15/97	Lee				
TTS	5,623,743	4/29/97	Burgoon et al.	15	320		
TTS	5,636,402	6/10/97	Kubo et al.	15	98		
FOREIGN PATENT DOCUMENTS							
	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)							
TTS		Yaguchi, Hiroshi, "Robot Introduction to cleaning work in the East Japan Railway Company", Advanced Robotics, Vol. 10 No.4, VSP and Robotics Society of Japan, pages: 403-414, (1996).					
EXAMINER B. Drider				DATE CONSIDERED 2/4/04			
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U.S. PATENT DOCUMENTS							
EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE IF APPROPRIATE
TA		6,357,070	3/19/02	Venard, et al.	16	50.1	
FOREIGN PATENT DOCUMENTS							
	REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION YES NO
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